REMARKS

Claims 2, 5-11, and 26 are pending in the application. Claim 26 has been amended, leaving claims 2, 5-11, and 26 for consideration upon entry of the present Amendment. Applicants request reconsideration in view of the Amendment and Remarks submitted herewith.

Claims 2, 5-11, and 26 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention. In particular, the Examiner asserts that the definition of R1 is not meaningful since the term (D-7) is confusing as D is in μm and 7 is unitless. Applicants respectfully traverse.

The definition of R1 is definite. Applicants have found that the formula ((D-7)/200 m $\leq$ R1 $\leq$ 5 m) calculates the lower range of the R1 number when inputting a value of D in which D is in μm units. Generally, in this technical field, the unit of the diameter of a focal spot is represented with "μm" and the distance is represented with "cm" or "m". Thus, for the convenience of an ordinarily skilled person, the formula ((D-7)/200 m $\leq$ R1 $\leq$ 5 m) is prepared in conformance with different units of "μm" and "m". Indeed, as shown in Table 1, R1 (m) of 0.12 can be obtained by inputting D (μm) of 30 in the formula. Applicants respectfully request that this rejection be withdrawn.

Claims 2, 5, 6, 8-11, and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Levene (US 5,209,232). For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceutical Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

The Examiner states that Levene teaches mammographic imaging employing a focal spot of 0.3 mm and a source-to-image distance of 55 cm. The Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention that the source-to-

object distance would have been slightly less than 55 cm i.e. about 52 cm to minimize radiation scatter from the object. Applicants respectfully traverse.

Claims 2, 5, 6, 8-11, and 26 include the following limitation: "setting a distance R1 between the X-ray tube and an object of a breast so as to be within a range defined by the following formula: (D-7)/200 m $\leq$ R1 $\leq$ 5 m." Levene does not teach or suggest this limitation.

Levene teaches that mammographic imaging employing a focal spot of 0.3 mm (300 μm) and a source-to-image distance of 55 cm. See column 5, lines 33-39. However, in Applicants' claim 2, when a focal spot of 300 μm is used, R1 equals (300-7)/200 m, which is 1.47 m. Thus, the source-to-image distance is 1.47 m when a focal spot of 300 μm is selected. Accordingly, the Examiner's assertion that the source-to-image distance is 52 cm when Applicants select a focal spot of 300 μm is incorrect. Levene's teaching of a 55 cm source-to-image distance with a focal spot of 0.3 mm is much shorter and very different from Applicants' 1.47 m with a focal spot of 0.3 mm (or 300 μm). Moreover, Levene teaches nothing about the distance R2 between the object of an X-ray detector. Accordingly, Levene does not teach or suggest all of the limitations of the claims. Applicants respectfully request that the Examiner withdraw the rejection.

In addition, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992); MPEP § 2143.01. In this case, Levene discloses a mammographic biopsy needle holder to solve the problem in the X-ray equipment with a C arm. See column 1, lines 30-50. In the C arm type X-ray equipment, there is no support device to hold the object (breast) of the patient between C-arm. Thus, because there is no support device to hold the object, there can be no motivation to use this reference to reach the claimed invention.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Levene in view of Diemer et al. (US 4,622,688) ("Diemer"). Claim 7 includes all of the limitations of claim 2. Thus, as explained above, Levene does not teach or suggest the limitations as asserted by the Examiner. Diemer does not remedy those deficiencies. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection as to claim 7.

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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April 16, 2003